ABSTRACT

A method for determining the presence of a face from image data includes a face detection algorithm having two separate algorithmic steps: a first step of prescreening image data with a first component of the algorithm to find

5   one or more face candidate regions of the image based on a comparison between facial shape models and facial probabilities assigned to image pixels within the region; and a second step of operating on the face candidate regions with a second component of the algorithm using a pattern matching technique to examine each face candidate region of the image and thereby confirm a facial presence in the

10   region, whereby the combination of these components provides higher performance in terms of detection levels than either component individually. In a camera implementation, a digital camera includes an algorithm memory for storing an algorithm comprised of the aforementioned first and second components and an electronic processing section for processing the image data

15   together with the algorithm for determining the presence of one or more faces in the scene. Facial data indicating the presence of faces may be used to control, e.g., exposure parameters of the capture of an image, or to produce processed image data that relates, e.g., color balance, to the presence of faces in the image, or the facial data may be stored together with the image data on a storage

20   medium.